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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,179	01/17/2002	William R. Wheeler	10559-607001/P12891	4487

7590 10/05/2004
FISH & RICHARDSON, PC
4350 LA JOLLA VILLAGE DRIVE
SAN DIEGO, CA 92122

EXAMINER

THOMPSON, ANNETTE M

ART UNIT PAPER NUMBER

2825

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

10/054,179

Applicant(s)

WHEELER ET AL.

Examiner

A. M. Thompson

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>06/11/2003; 03/15/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This application 10/054,179 has been examined. Claims 1-30 are pending.

Drawings

1. The drawings are objected to because Figures 1-4 have poor/illegible figure and line clarity. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 9 and 30 are objected to because of the following informalities: Pursuant to claim 9, the claim preamble should state the intended use or purpose of the

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invention. Pursuant to claim 30, this claim should depend from claim 29. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Rejection of claims 1-30

4. Claims 1-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Watkins et al., U.S. Patent 5,220,512. Watkins discloses a system for simultaneous, interactive presentation of electronic circuit diagrams and simulation data.

5. Pursuant to claims 1, 9, 11, 19, 21, 29, Watkins discloses a method (c1, c9), article comprising a machine-readable medium (c11, c19), and apparatus (c21, c29) for modeling a logic design (Abstract, Figs. 1, 2; col. 8, ll. 10-48), comprising creating a graphical representation of the logic design (col. 5, ll. 26-44); generating simulation code based on the graphical representation (col. 5, ll. 26-44; col. 5, line 59 to col. 6, line 13).

6. Pursuant to claims 2, 12, and 22, wherein the graphical representation is comprised of functional block diagrams and virtual wires that interconnect the functional block diagrams (Fig. 3; col. 5, ll. 26-43).

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7. Pursuant to claims 3, 13, 23 wherein creating comprises retrieving the functional block diagrams from a database and arranging the functional block diagrams and the virtual wires to model the logic design (col. 5, ll. 45-58).
8. Pursuant to claims 4, 14, 24, wherein creating comprises defining the functional block diagrams and the virtual wires to model the logic design (col. 8, ll. 10-35).
9. Pursuant to claims 5, 15, 25, further comprising displaying a menu comprised of different types of functional block diagrams (col. 5, ll. 21-24); receiving an input selecting one of the different types of functional block diagrams; retrieving a selected functional block diagram; and creating the graphical representation of the logic design using the selected functional block diagram (col. 5, ll. 26-40).
10. Pursuant to claims 6, 16, 26 further comprising propagating a state through the simulation code (col. 5, ll. 1-13); and determining if there is an error in the logic design based on the propagated state (col. 6, ll. 2-35).
11. Pursuant to claims 7, 17, and 27, wherein the state comprises one of a zero, one and an undefined state (Fig. 4, state table).
12. Pursuant to claim 8, 18, and 28, further comprising providing a visual indication if there is an error in the graphical representation of the logic design (col. 6, ll. 2-6; col. 9, ll. 45-57).
13. Pursuant to claims 10, 20, and 30, further comprising generating simulation code to simulate the operation of the logic design; and testing the logic design by propagating one or more states through the simulation code (col. 6, ll. 6-35; col. 7, ll. 3-47).

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Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please reference the PTO-892 for a complete listing.

15. Any inquiry concerning this communication or earlier communications should be directed to Examiner A.M. Thompson whose telephone number is (571) 272-1909. The Examiner can usually be reached Monday thru Friday from 8:00 a.m. to 4:30 p.m..

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

16. Responses to this action should be mailed to the appropriate mail stop:

Mail Stop _____

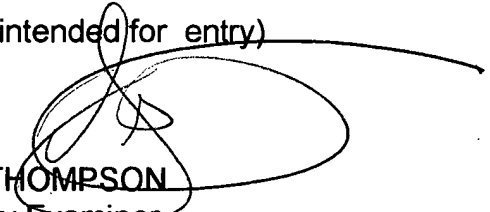
Commissioner for Patents

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or faxed to:

(703) 872-9306, (for all **OFFICIAL** communications intended for entry)


A. M. THOMPSON
Primary Examiner
Technology Center 2800

Notice of References Cited	Application/Control No. 10/054,179	Applicant(s)/Patent Under Reexamination WHEELER ET AL.	
	Examiner A. M. Thompson	Art Unit 2825	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-5,629,857	05-1997	Brennan	716/11
	B	US-5,220,512	06-1993	Watkins et al.	716/11
	C	US-6,366,874	04-2002	Lee et al.	703/14
	D	US-6,117,183	09-2000	Teranishi et al.	716/11
	E	US-6,272,671	08-2001	Fakhry	716/18
	F	US-5,852,564	12-1998	King et al.	703/14
	G	US-6,684,379	01-2004	Skoll et al.	716/11
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

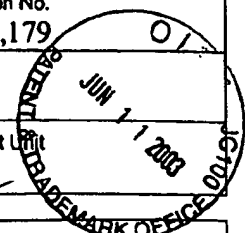
*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. / 10559-607001	Application No. / 10/054,179
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant William R. Wheeler et al. /	
		Filing Date January 17, 2002 /	Group Art Unit 2123 / 4825

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
[Handwritten Initials]	AA	2002/0049957	04/2002	Hosono et al.			
	AB	6,233,723	05/2001	Pribetich			
	AC	5,828,581	10/1998	Matumura			
	AD	2001/0018758	08/2001	Tanaka et al.			
	AE	5,666,289	09/1997	Watkins			
	AF	6,066,179	05/2000	Allan			
	AG	5,892,678	04/1999	Tokunoh et al.			
	AH	6,120,549	09/2000	Goslin et al.			
	AI	5,513,119	04/1996	Moore et al.			
	AJ	6,477,683	11/2002	Killian et al.			
	AK	6,505,341	01/2003	Harris et al.			
	AL	2003/0005396	01/2003	Chen et al.			
	AM	5,553,002	09/1996	Dangelo et al.			
	AN	6,366,874	04/2002	Lee et al.			
	AO	6,044,211	03/2000	Jain			
	AP	5,258,919	11/1993	Yamanouchi et al.			
	AQ	5,220,512	06/1993	Watkins et al.			
	AR	6,324,678	11/2001	Dangelo et al.			
	AS	6,236,956	05/2001	Mantooth et al.			
	AT	6,132,109	10/2000	Gregory et al.			
	AU	5,963,724	10/1999	Mantooth et al.			
	AV	5,852,564	12/1998	King et al.			
	AW	6,106,568	08/2000	Beausang et al.			
	AX	6,219,822	04/2001	Griestede et al.			
	AY	5,128,871	07/1992	Schmitz			
	AZ	5,506,788	04/1996	Cheng et al.			
	AAA	6,457,164	09/2002	Hwang et al.			

Examiner Signature [Handwritten Signature]	Date Considered 29 Sept 2004
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

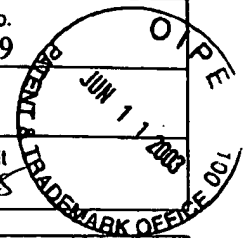
Substitute Form PTO-1449 (Modified) Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 10559-607001	Application No. 10/054,179
	Applicant William R. Wheeler et al.		
	Filing Date January 17, 2002	Group Art Unit 2123 <i>2875</i>	



U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	ABB	2002/0042904	04/2002	Ito et al.			
	ACC	6,449,762	09/2002	McElvain			
	ADD	6,378,115	04/2002	Sakurai			
	AEE	6,272,671	08/2001	Fakhry			
	AFF	6,260,179	07/2001	Ohsawa et al.			
	AGG	6,117,183	09/2000	Teranishi et al.			
	AHH	5,889,677	03/1999	Yasuda et al.			
	AII	6,298,468	10/2001	Zhen			
	AJJ	6,477,689	11/2002	Mandell et al.			
	AKK	6,480,985	11/2002	Reynolds et al.			
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	AMM	6,152,612	11/2000	Liao et al.			
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	AQQ	2003/0016246	01/2003	Singh			
	ARR	2003/0016206	01/2003	Taitel			
	ASS	6,233,540	05/2001	Schaumont et al.			
	ATT	6,487,698	11/2002	Andreev et al.			
	AUU	6,311,309	10/30/2001	Southgate			
	AVV	2002/0166100	11-2002	Meding			
	AWW	US 5,629,857	05-1997	Brennan			
	AXX	2002/0046386	04-2002	Skoll et al.			
	AYY	6,401,230	06/2002	Ahanessians et al.			
	AZZ	5,933,356	08/1999	Rostoker et al.			
	AAAA	6,205,573	03/2001	Hasegawa			
	ABBB						

Examiner Signature 	Date Considered 29-SEP-2004
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 10559-607001	Application No. 10/054,179
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant William R. Wheeler et al.	
		Filing Date January 17, 2002	Group Art Unit 2123 <i>2825</i>



U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	ACCC						

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	ADDD							
	AEEE							
	AFFF							

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	AGGG	Foley et al., "An Object Based Graphical User Interface for Power Systems", IEEE Transactions on Power Systems, Vol. 8, No. 1, February 1993, pp. 97-104.
	AHHH	Pedram et al., "Floorplanning with Pin assignment", 1990 IEEE International Conference on Computer-Aided Design, 11 November 1990, pp. 98-101.
	AIII	Renoir, HDL Design Datasheet, Mentor Graphics, 1-8, 1999.
	AJJJ	Mentor Graphics Corporation, Renoir™ With HDL2Graphics™, pp. 1-6, 1998, Oregon.
	AKKK	Mentor Graphics Corporation, Renoir HDL Design Datasheet, pp. 1-2, 1999, Oregon.
	ALLL	Computer Design, "AFTER HARD KNOCKS, CYCLE-BASED SIMULATORS STAND THEIR GROUND". http://www.computer-design.com/Editorial/1996/10/ASIC/after.html , accessed on August 23, 2001, pages 1-5.
	AMMM	
	ANNN	
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Examiner Signature 	Date Considered 29 SEPTEMBER 2004
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Substitute Form PTO-1449

U.S. Department of Commerce
Patent and Trademark OfficeAttorney's Docket No.
10559-607001Application No.
10/054,179**Information Disclosure Statement
by Applicant**

(Use several sheets if necessary)

Applicant
William R. Wheeler et al.Filing Date
January 17, 2002

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(37 CFR 1.98(b))

U.S. Patent Documents

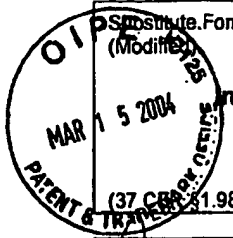
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	RE 38,059	04/2003	Yano, et al.			
	AB	4,703,435	10/1987	Darringer, et al.			
	AC	4,970,664	11/1990	Kaiser, et al.			
	AD	5,212,650	05/1993	Hooper, et al.			
	AE	5,267,175	11/1993	Hooper			
	AF	5,278,769	01/1994	Bair, et al.			
	AG	5,287,289	02/1994	Kageyama, et al.			
	AH	5,297,053	03/1994	Pease, et al.			
	AI	5,301,318	04/1994	Mittal			
	AJ	5,384,710	01/1995	Lam, et al.			
	AK	5,475,605	12/1995	Lin			
	AL	5,493,507	02/1996	Shinde, et al.			
	AM	5,544,067	08/1996	Rostoker, et al.			
	AN	5,568,397	10/1996	Yamashita, et al.			
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	AP	5,603,015	02/1997	Kurosawa, et al.			
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	AR	5,663,662	09/1997	Kurosawa			
	AS	5,673,198	09/1997	Lawman, et al.			
	AT	5,685,006	11/1997	Shiraishi			
	AU	5,694,579	12/1997	Razdan, et al.			
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	AW	5,717,928	02/1998	Campmas, et al.			
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	AZ	5,809,283	09/1998	Vaidyanathan, et al.			
	AAA	5,831,869	11/1998	Ellis, et al.			

Examiner Signature

Date Considered

29- SEPT- 2004

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 Substitute Form PTO-1449
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 U.S. Department of Commerce
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 Attorney's Docket No.
 10559-607001

 Application No.
 10/054,179

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**Information Disclosure Statement
 by Applicant**

(Use several sheets if necessary)

 Applicant
 William R. Wheeler et al.

MAR 17 2004

 Filing Date
 January 17, 2002

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(37 C.F.R. 1.98(b))

U.S. Patent Documents

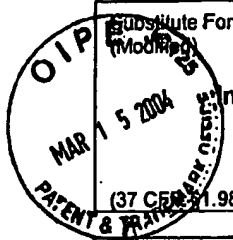
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	ABB	5,841,663	11/1998	Sharma, et al.			
	ACC	5,892,682	04/1999	Hasley, et al.			
	ADD	5,903,469	05/1999	Ho			
	AEE	5,937,190	08/1999	Gregory, et al.			
	AFF	5,974,242	10/1999	Damarla, et al.			
	AGG	6,077,304	06/2000	Kasuya			
	AHH	6,161,211	12/2000	Southgate			
	AII	6,178,541	01/2001	Joly, et al.			
	AJJ	6,208,954	03/2001	Houtchens			
	AKK	6,216,256	04/2001	Inoue, et al.			
	ALL	6,226,780	05/2001	Bahra, et al.			
	AMM	6,234,658	05/2001	Houldsworth			
	ANN	6,275,973	08/2001	Wein			
	AOO	6,292,931	09/2001	Dupenloup			
	APP	6,327,693	12/2001	Cheng, et al.			
	AQQ	6,353,806	03/2002	Gehlot			
	ARR	6,353,915	03/2002	Deal, et al.			
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	ATT	6,381,563	04/2002	O'Riordan, et al.			
	AUU	6,381,565	04/2002	Nakamura			
	AVV	6,421,816	07/2002	Ishikura			
	AWW	6,438,729	08/2002	Ho			
	AXX	6,438,731	08/2002	Segal			
	AYY	6,440,780	08/2002	Kimura, et al.			
	AZZ	6,473,885	10/2002	Wallace			
	AAAA	6,477,688	11/2002	Wallace			
	ABBB	6,490,545	12/2002	Peng			

Examiner Signature

Date Considered

29-SEPT-2004

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Substitute Form PTO-1449
(Modified)U.S. Department of Commerce
Patent and Trademark OfficeAttorney's Docket No.
10559-607001Application No.
10/054,179**Information Disclosure Statement
by Applicant**

(Use several sheets if necessary)

(37 CFR 1.98(b))

Applicant
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U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	ACCC	6,505,328	01/2003	Van Ginneken, et al.			
	ADDD	6,516,456	02/2003	Garnett, et al.			
	AEEE	6,519,742	02/2003	Falk			
	AFFF	6,523,156	02/2003	Cirit			
	AGGG	6,539,536	03/2003	Singh et al.			
	AHHH	6,546,528	04/2003	Sasaki, et al.			
	AIHH	6,574,787	06/2003	Anderson			
	AJJJ	6,591,407	07/2003	Kaufman, et al.			
	AKKK	2002/0038447	03/2002	Kim, et al.			
	ALLL	2002/0059054	05/2002	Bade, et al.			
	AMMM	2002/0112221	08/2002	Ferreri, et al.			
	ANNN	2002/0138244	09/2002	Meyer			
	AOOO	2003/0004699	01/2003	Choi, et al.			
	APPP	2003/0036871	02/2003	Fuller, et al.			
	AQQQ	2003/0177455	09/2003	Kaufman, et al.			

Foreign Patent Documents or Published Foreign Patent Applications

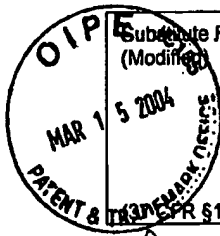
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	ARRR	0 404 482	12/1990	EPO				
	ASSS	0 433 066	06/1991	EPO				
	ATTT	0 720 233	07/1996	EPO				
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 10559-607001

 Application No.
 10/054,179

**Information Disclosure Statement
 by Applicant**

(Use several sheets if necessary)

 Applicant
 William R. Wheeler et al.

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 January 17, 2002

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Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AAAAA	2001-068994	03/2001	Japan				
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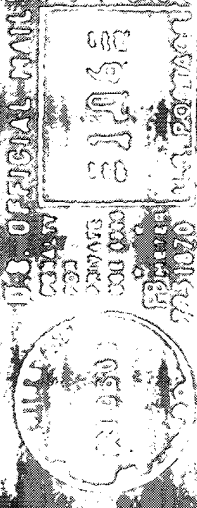
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